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| Joseph J. Laks                        |             |                      | EXAMINER               |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/573,109

**Applicant(s)**

BICHOT ET AL.

**Examiner**

BENJAMIN ELLIOTT

**Art Unit**

4144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date 3/23/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-11 have been examined and are pending.

#### *Information Disclosure Statement*

2. An initialed and dated copy of the applicant's IDS form 1449 submitted on 3/26/2006 is attached to the instant office action.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 4-10 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Publication US 2005/0066166 A1 by Chin et al (hereinafter "Chin").

As per Claim 1, Chin discloses **a method for controlling Quality of Service (QoS) levels/service levels within a wired network associated with wireless Local Area Network (LAN)** ([0023-0024]; Embodiments of the invention allow for solutions in wired and wireless networks including bandwidth management and Quality of Service

issues. [0030]; The single chip solution solves problems in wired and wireless LANs.), **the wired network having different paths for carrying information frames received from at least one mobile terminal user** (Figure 4B, Figure 4C; Both Figure 4B and Figure 4C show multiple routes to multiple users, wired or wireless.), **comprising the steps of: receiving in the network at least one frame of information** ([0035], Figure 2; Ingress logic receives unencrypted and encrypted packets.); **determining a QoS level/service level for the received frame** ([0052-0053]. ACLs (access control lists) are used for assigning the packet priority, policing and bandwidth management (also called "QoS ACLs")); **associating with the received frame an identifier that identifies a path through the network having a transmission capability sufficient to provide the determined QoS level/service level** ([0040]; An assignment of a VLAN id is given to an untagged packet. [0051]; The packet is sent to the ACL block for further processing. [0052-0053]. ACLs (access control lists) are used for assigning the packet priority, policing and bandwidth management (also called "QoS ACLs")); **and routing the frame in the network in accordance with the associated identifier** ([0061]; Once the scheduler (packet memory contains a scheduler for assigning priority in the priority queue) selects the packet to send it out on the Egress port it reads the packet from the packet memory and sends it into Egress pipeline.).

As per Claim 4, Chin discloses **the method according to claim 1 wherein the step of receiving the information frame comprises the step of receiving an IP packet in an Ethernet Frame** (Figure 2, [0035]; The ingress logic receives IP packets

at the input ports. Figure 3, [0116]; The GMAC (Gigabit Ethernet media access controller) delivers information via IP packets (shown as lines with arrows attached.).).

As per Claim 5, Chin discloses **the method according to claim 4 wherein the step of associating the identifier with the received frame comprises the step of associating a Virtual Local Area Network (VLAN) number with the frame** ([0040]; An assignment of a VLAN id is given to an untagged packet.).

As per Claim 6, **the method according to claim 1 wherein the step of routing the frame comprises the step of routing the frame to one of a plurality of separate destinations** (Figure 4B; In Figure 4B, the Ethernet switch is shown attached to multiple users. [0075]; The packet may be multicast to multiple destinations.).

As per Claim 7, Chin **discloses the method according to claim 1 wherein the step of routing the frame comprises the step of routing the frame to one destination across a selected one of a plurality of interfaces** (Figure 4A, [0165]. The embodiment contains access control to many interfaces in a wireless network to establish a mesh network for packet transmission and reception.).

As per Claim 8, Chin discloses **a wireless Local Area Network (LAN) for routing received information frames** ([0030]; The single chip solution solves problems in wired and wireless LANs.), **comprising: at least one Access Point for receiving radio traffic from at least one mobile terminal and for communicating such traffic in the form of at least one information frame** ([0030]; The invention allows for implementation in to various components such as access point controllers.

Figure 2, [0035]; The ingress logic receives IP packets at the input ports. Figure 3, [0116]; The GMAC (Gigabit Ethernet media access controller) delivers information via IP packets (shown as lines with arrows attached.).), **an administrative gateway for establishing a Quality of Service level/service level for the one information frame and for instructing the Access Point to assign an identifier to the frame in accordance with the QoS level/service level established for the frame** ([0040]; An assignment of a VLAN id is given to an untagged packet. [0051]; The packet is sent to the ACL block for further processing. [0052-0053]. ACLs (access control lists) are used for assigning the packet priority, policing and bandwidth management (also called "QoS ACLs")); **and a switch for routing the frame to a destination selected in accordance with the assigned identifier** (Figure 4B; In Figure 4B, the Ethernet switch is shown attached to multiple users. [0075]; The packet may be multicast to multiple destinations.).

As per Claim 9, Chin discloses **the wireless LAN according to claim 8 wherein the switch comprises a Virtual Local Area Network (VLAN) capable Ethernet switch and wherein the identifier assigned to the frame comprises a VLAN number** (Figures 4A-4B. [0165]; The Ethernet switch is capable of connecting wired or wireless users. [0040]; An assignment of a VLAN id is given to an untagged packet. The Ethernet switch transmits packets.).

As per Claim 10, Chin discloses **the wireless LAN according to claim 8 further including a plurality of routing gateways, each comprising a destination for the frame routed by the switch in accordance with the identifier assigned to the frame**

[[0088]; The packets go through Application Level Gateways (ALGs) for various application processing such as NAT (network address translation) and Firewall applications. [0052]; The ACLs are used to control source and destination address IDs. Figures 4A-4B. [0165]; The Ethernet switch is capable of connecting wired or wireless users. [0040]; An assignment of a VLAN id is given to an untagged packet. The Ethernet switch transmits packets.).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin, and further in view of US Patent 7,415,003 B1 by Ogura et al (hereinafter "Ogura").

As per Claim 2, Chin discloses **the method according to claim 1 wherein the QoS level/service level is determined from the identity of the mobile terminal user that originated the frame** (Figure 4B, Figure 4C; Both Figure 4B and Figure 4C show multiple routes to multiple users, wired or wireless. Figure 2, [0035]; The ingress logic receives IP packets at the input ports. Figure 3, [0116]; The GMAC (Gigabit Ethernet

media access controller) delivers information via IP packets (shown as lines with arrows attached.).).

Chin is silent on after receiving the frame, determining the mobile user from whence the packet came, and the QoS level that needs to be determined.

However, Ogura teaches a network management method that controls QoS levels through a plurality of network element managers.(col. 1, lines 66-67; col. 2, lines 1-28). Each network managing element receives requests for QoS capabilities of either the network of the user or of a subnetwork.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Chin to include a QoS management system to satisfy a user's QoS requirements through a plurality of domains (col. 1, lines 60-65).

As per Claim 3, Chin discloses **the method according to claim 1 wherein the QoS level/service level is determined in accordance with a QoS level/service level request received from the mobile terminal user** (Figure 4B, Figure 4C; Both Figure 4B and Figure 4C show multiple routes to multiple users, wired or wireless. Figure 2, [0035]; The ingress logic receives IP packets at the input ports. Figure 3, [0116]; The GMAC (Gigabit Ethernet media access controller) delivers information via IP packets (shown as lines with arrows attached.).).

Chin is silent on after receiving the frame, determining the mobile user from whence the packet came, and the QoS level that needs to be determined.



However, Ogura teaches a network management method that controls QoS levels through a plurality of network element managers.(col. 1, lines 66-67; col. 2, lines 1-28). Each network managing element receives requests for QoS capabilities of either the network of the user or of a subnetwork.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Chin to include a QoS management system to satisfy a user's QoS requirements through a plurality of domains (col. 1, lines 60-65).

7. Claim11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chin, and further in view of US Patent 7,428,216 B2 by Siddiqui et al (hereinafter "Siddiqui").

As per Claim 11, Chin discloses the wireless LAN according to claim 8 ([0023-0024]; Embodiments of the invention allow for solutions in wired and wireless networks including bandwidth management and Quality of Service issues. [0030]; The single chip solution solves problems in wired and wireless LANs.), further including a routing gateway, having a plurality of interfaces, each interface providing a path for carrying a frame routed by the switch in accordance with the identifier assigned to the frame (Figures 4A-4B. [0165]; The Ethernet switch is capable of connecting wired or wireless users. [0040]; An assignment of a VLAN id is given to an untagged packet. The Ethernet switch transmits packets.).

Chin is silent on the wireless LAN containing a routing gateway.

However, Siddiqui teaches an embodiment of the invention where the network may be a local area network (Figure 1, col4. lines 12-17), and this network contains a gateway (Figure 8, col. 10, lines 32-42).

Therefore it would have been obvious to one of ordinary skill in the art to modify the teachings of Chin with the teachings of Siddiqui to minimize the call set-up time (col. 10, lines 42-44).

### ***Conclusion***

8. Prior art made of record and not relied upon include:

US Patent Publication 2003/0035398 A1 by Sato teaches a wireless VLAN configuration in a wireless LAN system.

US Patent 5,371,731 by Pratt et al teaches a method for network traffic management.

US Patent Publication US 2002/0027906 A1 by Athreya et al teaches a method for connecting virtual local area networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN ELLIOTT whose telephone number is (571)270-7163. The examiner can normally be reached on Monday thru Thursday, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on 1-571-272-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. E./  
Examiner, Art Unit 4144

/Taghi T. Arani/  
Supervisory Patent Examiner, Art Unit 4144



